



**Maine Department of Environmental Protection
Biological Monitoring Program
Aquatic Life Classification Attainment Report**

Station Information

Station Number: S-752	River Basin:	Saco
Waterbody: Long Creek - Station 752	HUC8 Name:	Presumpscot
Town: South Portland	Latitude:	43 38 11.9 N
Directions: ~30M UPSTREAM OF FODEN RD BY "ATLANTIC PLACE"	Longitude:	70 19 44.51 W
	Stream Order:	2

Sample Information

Log Number: 2923	Type of Sample:	ROCK BAG	Date Deployed:	8/6/2021
Subsample Factor: X1	Replicates:	3	Date Retrieved:	9/3/2021

Classification Attainment

Statutory Class: C	Final Determination: NA	Date:	1/13/2023
Model Result with P \geq 0.6: NA	Reason for Determination: Model		
Date Last Calculated: 5/3/2022	Comments:		

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.00	Class A, B, or C	0.00
Class B	0.00	Non-Attainment	1.00
		<u>A Model</u>	
<u>B or Better Model</u>		Class A	0.00
Class A or B	0.00	Class B or C or Non-Attainment	1.00
Class C or Non-Attainment	1.00		

Model Variables

01 Total Mean Abundance	301.33	18 Relative Abundance Ephemeroptera	0.00
02 Generic Richness	37.00	19 EPT Generic Richness	4.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes, Micropsectra, Parachironomus, Helobdella</i>	10.67
04 Ephemeroptera Mean Abundance	0.00	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	3.13	25 Sum of Abundances: <i>Cheumatopsyche, Cricotopus, Tanytarsus, Ablabesmyia</i>	8.33
06 Hilsenhoff Biotic Index	4.87	26 Sum of Abundances: <i>Acroneuria, Maccaffertium, Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.15	28 EP Generic Richness/14	0.00
08 Relative Generic Richness Diptera	0.38	30 Presence of Class A Indicator Taxa/7	0.00
09 <i>Hydropsyche</i> Abundance	2.00		
11 <i>Cheumatopsyche</i> Abundance	6.67		
12 EPT Generic Richness/ Diptera Generic Richness	0.29		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Gammarus</i>	42.37
2	<i>Limnodrilus</i>	19.75
3	<i>Stictochironomus</i>	6.08
4	<i>Rheotanytarsus</i>	5.09
5	<i>Helobdella</i>	3.32



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Sample Collection and Processing Information

Sampling Organization: WATERSHED MANAGEMENT Taxonomist: MICHAEL COLE
 UNIT

Waterbody Information - Deployment

Temperature: 19.6 deg C
 Dissolved Oxygen: 8.47 mg/l
 Dissolved Oxygen Saturation: 92.5 %
 Specific Conductance: 712 uS/cm
 Velocity: 33.53 cm/s
 pH:
 Wetted Width: 3.6 m
 Bankfull Width: 5.6 m
 Depth: 30 cm

Waterbody Information - Retrieval

Temperature: 16.9 deg C
 Dissolved Oxygen: 8.76 mg/l
 Dissolved Oxygen Saturation: 90.4 %
 Specific Conductance: 462.7 uS/cm
 Velocity: 29.87 cm/s
 pH:
 Wetted Width: 4.05 m
 Bankfull Width: 5.6 m
 Depth: 32 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>
Urban	Dense	Flat
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>
Altered Habitat Chloride	Above Road Crossing	Boulder 15 % Gravel 20 % Rubble/Cobble 20 % Silt 45 %

Landcover Summary - 2004 Data

Total Area (ac)	1482	High Int. Dev. %	17.8	Water %	0.0	Non-vegetated %	0.2
		Med Int. Dev. %	6.4	Wetland %	9.7	Tilled Agriculture %	0.6
		Low Int. Dev. %	5.2	Upland Woody %	26.6	Grassland %	2.8
		Development %	29.4	Natural %	39.3	Human Altered %	63.4
						Impervious %	23.8
Total Land (ac)	1482	High Int. Dev. %	17.8	Water %	N/A	Non-vegetated %	N/A
		Med Int. Dev. %	6.4	Wetland %	9.7	Tilled Agriculture %	0.6
		Low Int. Dev. %	6.4	Upland Woody %	26.6	Grassland %	2.8
		Development %	29.4	Natural %	39.3	Human Altered %	63.4
						Impervious %	23.8

Sample Comments



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Aquatic Life Taxonomic Inventory Report

Station Number: S-752

Waterbody: Long Creek - Station 752

Town: South Portland

Log Number: 2923

Subsample Factor: X1

Replicates: 3

Calculated: 5/3/2022

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Girardia</i>	03010102002	0.33	0.33		--	0.1	0.1
Naididae	08020202	65.33			--	21.7	
<i>Nais</i>	08020202009	0.33	8.50		CG	0.1	2.8
<i>Limnodrilus</i>	08020202022		59.50		CG		19.7
<i>Limnodrilus hoffmeisteri</i>	08020202022003	2.33			--	0.8	
<i>Glossiphonia</i>	08030101004		2.00		--		0.7
<i>Glossiphonia elegans</i>	08030101004001	2.00			--	0.7	
<i>Helobdella</i>	08030101005		10.00		--		3.3
<i>Helobdella stagnalis complex</i>	08030101005004	10.00			--	3.3	
<i>Erpobdella</i>	08030203002	2.00	2.00		--	0.7	0.7
<i>Caecidotea</i>	09010101001	0.67	0.67	8	SH	0.2	0.2
<i>Gammarus</i>	09010201003	127.67	127.67	4	--	42.4	42.4
<i>Phylocentropus</i>	09020603011	0.67	0.67	5	CF	0.2	0.2
<i>Cheumatopsyche</i>	09020604015	6.67	6.67	5	CF	2.2	2.2
<i>Hydropsyche</i>	09020604016		2.00	4	CF		0.7
<i>Hydropsyche betteni</i>	09020604016037	2.00			--	0.7	
<i>Mystacides</i>	09020618075		0.67	4	CG		0.2
<i>Mystacides sepulchralis</i>	09020618075147	0.67			--	0.2	
<i>Dicranota</i>	09021001005	0.33	0.33	3	PR	0.1	0.1
Chironomidae	09021011				--		
<i>Cricotopus</i>	09021011037	0.33	0.33	7	SH	0.1	0.1
<i>Parakiefferiella</i>	09021011052	2.67	2.67		CG	0.9	0.9
<i>Tvetenia</i>	09021011065		0.67	5	CG		0.2
<i>Tvetenia paucunca</i>	09021011065114	0.67			--	0.2	
<i>Cladotanytarsus</i>	09021011068	0.67	0.67	7	CG	0.2	0.2
<i>Micropsectra</i>	09021011070	0.67	0.67	7	CG	0.2	0.2
<i>Rheotanytarsus</i>	09021011072		15.33	6	CF		5.1
<i>Rheotanytarsus exiguus group</i>	09021011072127	15.33			CF	5.1	
<i>Tanytarsus</i>	09021011076	1.33	1.33	6	CF	0.4	0.4
<i>Chironomus</i>	09021011080	0.67	0.67	10	CG	0.2	0.2
<i>Cryptochironomus</i>	09021011082	3.33	3.33	8	PR	1.1	1.1
<i>Polypedilum</i>	09021011102		0.67	6	SH		0.2
<i>Polypedilum scalaenum group</i>	09021011102189	0.67			--	0.2	
<i>Stictochironomus</i>	09021011106	18.33	18.33	9	CG	6.1	6.1
Tabanidae	09021014	0.33	0.33		--	0.1	0.1
<i>Hemerodromia</i>	09021016057	0.67	0.67	3	PR	0.2	0.2
<i>Ancyronyx</i>	09021113063		1.00	6	--		0.3



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		Actual	Adjusted			Actual	Adjusted
<i>Ancyronyx variegatus</i>	09021113063034	1.00			CG	0.3	
<i>Dubiraphia</i>	09021113064	3.33	3.33	6	--	1.1	1.1
<i>Macronychus</i>	09021113065		4.67	4	--		1.5
<i>Macronychus glabratus</i>	09021113065040	4.67			--	1.5	
<i>Optioservus</i>	09021113067		1.00	3	SC		0.3
<i>Optioservus ovalis</i>	09021113067046	0.33			--	0.1	
<i>Optioservus tardella</i>	09021113067052	0.67			--	0.2	
<i>Stenelmis</i>	09021113070	8.67	8.67	5	SC	2.9	2.9
Gastropoda	1001	3.00	3.00		--	1.0	1.0
<i>Amnicola</i>	10010104013	1.00	1.00		SC	0.3	0.3
<i>Physella</i>	10010202027	3.67	3.67		SC	1.2	1.2
<i>Helisoma</i>	10010203030	1.00	1.00		SC	0.3	0.3
<i>Ferrissia</i>	10010204035	0.67	0.67		SC	0.2	0.2
Sphaeriidae	10020201	2.33			CF	0.8	
<i>Pisidium</i>	10020201002	3.33	5.13		CF	1.1	1.7
<i>Sphaerium</i>	10020201003	1.00	1.54		CF	0.3	0.5